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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,406	01/21/2004	Shmuel Melamed	2232/11	1292

EXAMINER	
WON, MICHAEL YOUNG	

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2155	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/760,406

Applicant(s)

MELAMED ET AL.

Examiner

Michael Y. Won

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-18 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/5/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the application filed January 21, 2004
2. Claims 1-18 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 and 6-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Dougliis et al. (US 2003/0009563 A1).

INDEPENDENT:

As per **claim 1**, Dougliis teaches a method for accelerating reception by a user browser of a target original object (OO) having an original object content, the OO transmitted from a originating server over a network in response to a request by the user, the method comprising steps of:

- a. using an accelerator to determine a fractional content of the target OO that is not cached in a local browser cache, said determination including comparisons with a

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plurality of same domain objects (see page 2, [0016]: "If not, then at step 208, the scripting program processes the include element by attempting to establish a connection to the relevant server and retrieving the required data object fragment");

b. transmitting said fractional content to the user (see page 2, [0016]: "retrieving the required data object fragment"); and

c. at the user browser, fulfilling the request by using said fractional content and additional content received by the browser from said accelerator and from the server (see page 2, [0016]: "the scripting program takes the assembled components and presents the resulting page which is then displayed in the browser application").

As per **claim 7**, Douglass teaches a method for accelerating transmission of objects between a source server having a domain and an end-user browser over a network, the method comprising steps of:

a. providing an accelerator that communicates with the server and the end-user (see page 2, [0015]: "Rather than serving the content directly the server 120 responds by sending a small "wrapper" page 150 that contains a scripting program 155");

b. receiving, by said accelerator, a target original object (OO) from the server in response to an end user request (see page 2, [0016]: "If not, then at step 208, the scripting program processes the include element by attempting to establish a connection to the relevant server");

c. processing, by said accelerator (see page 2, [0016]: "If not, then at step 208, the scripting program processes the include element"), said target OO to produce a

reduced content dynamic object (DO) that includes references to matching static objects (SOs) stored in a local cache of said browser, dynamic objects that need refreshing, and reassembly instructions for reassembling said target OO (see page 1, [0007]: "By providing static content in a cached template and dynamic content in included elements, it is possible to efficiently generate the data page and minimize bandwidth demands");

d. transmitting said DO to the end-user (see page 2, [0016]: "retrieving the required data object fragment"); and

e. fulfilling said request at the end user browser by reassembling said target OO using said DO references, objects and reassembly instructions and additional target object components missing from said local cache (see page 2, [0016]: "the scripting program takes the assembled components and presents the resulting page which is then displayed in the browser application").

As per **claim 10**, Douglass teaches a method for accelerating traffic over the Internet, comprising steps of:

a. positioning an accelerator between a source server and an end user (see page 2, [0015]: "Rather than serving the content directly the server 120 responds by sending a small "wrapper" page 150 that contains a scripting program 155") having a browser with a browser cache (see page 2, [0016]: "browser cache"), said accelerator operative to process requests from the end user and target original objects (OO) served by the server in response to user requests (see page 2, [0016]: "attempting to establish a connection to the relevant server and retrieving the required data object fragment"),

b. processing (see page 2, [0016]: "If not, then at step 208, the scripting program processes the include element") each said target OO to produce a dynamic object (DO) (see page 1, [0007]: "By providing static content in a cached template and dynamic content in included elements, it is possible to efficiently generate the data page and minimize bandwidth demands"; and page 2, [0016]: "If not, then at step 208, the scripting program processes the include element by attempting to establish a connection to the relevant server and retrieving the required data object fragment"),

c. transmitting said DO to the end user (see page 2, [0016]: "retrieving the required data object fragment"), and

d. reassembling at the end user the target OO using said DO and additional required data not stored in said cache (see page 2, [0016]: "the scripting program takes the assembled components and presents the resulting page which is then displayed in the browser application").

As per **claim 15**, Dougliis teaches a method for accelerating traffic between a server and an end-user over a network, comprising steps of:

a. obtaining, at an accelerator interposed between the server and the end user (see page 2, [0015]: "a client browser 110 issues an HTTP GET request to the server 120... Rather than serving the content directly the server 120 responds by sending a small "wrapper" page 150 that contains a scripting program 155"), a request from the end-user for a target object and from the server said target object (see page 2, [0016]:

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“attempting to establish a connection to the relevant server and retrieving the required data object fragment”),

b. fragmenting said target object into target dynamic and static components (see page 1, [0007]: “By providing static content in a cached template and dynamic content in included elements, it is possible to efficiently generate the data page and minimize bandwidth demands”),

c. identifying, in an end-user cache, static components similar to said target static components (see page 2, [0016]: “At step 207, the browser cache is checked to see whether it contains the required data object fragment”),

d. transmitting to the end-user only non-similar target static components that do not have closely fitting matches in said end-user cache as well as updated dynamic components (see page 2, [0016]: “retrieving the required data object fragment” and “Where a copy of the data object is in the browser cache and is not stale, then at step 209, the data object fragment is retrieved from the cache and then assembled into the template”), and

e. reassembling, at the end-user, said target object using said transmitted static components and said updated dynamic components (see page 2, [0016]: “the scripting program takes the assembled components and presents the resulting page which is then displayed in the browser application”).

As per **claim 17**, Dougli teaches a system for accelerating traffic over a network between a server serving a response object in response to a request from an end-user comprising:

- a. a mechanism for determining fresh static and dynamic components in a most recent of the response objects served by the server (page 1, [0007]: "By providing static content in a cached template and dynamic content in included elements, it is possible to efficiently generate the data page and minimize bandwidth demands"; and page 2, [0016]: "Where a copy of the data object is in the browser cache and is not stale, then at step 209, the data object fragment is retrieved from the cache and then assembled into the template"), said fresh components differing substantially from previous components sent to the end-user in previous response objects and stored in an end-user cache,
- b. a mechanism for transmitting said fresh components to the end-user (see page 2, [0016]: "retrieving the required data object fragment"), and
- c. a mechanism for reassembling said most recent response object at the end-user using said transmitted fresh components and required components of said recent response object not cached in said cache (see page 2, [0016]: "the scripting program takes the assembled components and presents the resulting page which is then displayed in the browser application").

DEPENDENT:

As per **claim 2**, which depends on claim 1, Dougli further teaches wherein said step of using an accelerator to determine a fractional content includes

i. building a static object repository (SOR) that includes static objects (SOs) (see page 2, [0016]: “builds a document object model (DOM) tree dynamically”),

ii. finding a static object list (SOL) in said SOR that best fits the target OO (see page 2, [0016]: “Where a copy of the data object is in the browser cache and is not stale, then at step 209, the data object fragment is retrieved from the cache and then assembled into the template”), and

iii. building a dynamic object (DO) that includes reference to each static object in said SOL as well as additional information (see page 2, [0016]: “inclusion markup, such as a conditional element”), said dynamic object characterized by having less content than said target OO content, and

wherein said step of transmitting includes transmitting said dynamic object to the user (see page 1, [0007]: “By providing static content in a cached template and dynamic content in included elements”; and see page 2, [0016]: “retrieving the required data object fragment”).

As per **claim 3**, which depends on claim 2, Douglass further teaches wherein said building a SOR is preceded by preparing an original object repository (OOR), wherein said building a SOR is performed by analyzing and comparing all OOs in said OOR, and wherein said finding a SOL that best fits the target OO includes running a comparison between the target OO and each of the SOs in the SOL using a URL of the target OO as a hint (see page 2, [0016]: “the scripting program traverses the tree to locate inclusion markups... identifies an include element, at step 206, then the scripting program attempts to retrieve the required data object fragment for assembly”).

As per **claim 6**, which depends on claim 1, Dougkis further teaches wherein each said original object is a Web page (see page 1, [0007]: "The browser retrieves the included objects and assembles them into a complete data page").

As per **claim 8**, which depends on claim 7, Dougkis further teaches wherein said step of processing of said target OO includes identifying a static object list (SOL) that may fit said target OO, and wherein said step of transmitting includes transmitting references to SOs in said SOL instead of transmitting said SOs to the end-user, thereby reducing the amount of traffic between the source server and the end user (see page 2, [0016]: "the scripting program traverses the tree to locate inclusion markups... identifies an include element, at step 206, then the scripting program attempts to retrieve the required data object fragment for assembly").

As per **claim 9**, which depends on claim 8, Dougkis further teaches wherein said identifying of a static object list (SOL) that may fit said target OO is preceded by building, using previous OOs requested from the domain, an original object repository (OOR) in which each entry contains a pointer to OO attributes such as a request URL and a list of pointers to a SO score-of-match level, and wherein said identifying further includes building, preferably periodically, a static object repository (SOR) by analyzing and comparing all the objects in said OOR, said SOR used to form said SOL (see page 2, [0016]: "builds a document object model (DOM) tree dynamically").

As per **claim 11**, which depends on claim 10, Dougkis further teaches wherein said step of processing includes fragmenting each said target OO into dynamic and static components and determining which of said static components do not already exist

in said browser cache and which of said dynamic components need refreshing, and wherein said step of transmitting includes transmitting with said DO only said static components or parts that do not already exist in said browser cache and said dynamic components that need refreshing (see page 2, [0016]).

As per **claim 12**, which depends on claim 11, Douglass further teaches wherein said determining is done heuristically, based on a plurality of OOs previously received by said accelerator from the same domain in the Internet (see page 2, [0016]: “fresh copy of the template is cached”, “modify the DOM tree structure accordingly”).

As per **claim 13**, which depends on claim 11, Douglass further teaches wherein said fragmenting is done heuristically (see page 1, [0007]: “assemble contents dynamically”).

As per **claim 14**, which depends on claim 11, Douglass further teaches wherein said target OO is a Web page (see page 1, [0007]: “The browser retrieves the included objects and assembles them into a complete data page”).

As per **claim 16**, which depends on claim 15, Douglass further teaches wherein said network is the Internet (see page 2, [0014]: “Internet Explorer”) and wherein said target object is a Web page (see page 1, [0007]: “The browser retrieves the included objects and assembles them into a complete data page”).

As per **claim 18**, which depends on claim 17, Douglass further teaches wherein said mechanism for determining fresh static and dynamic components in a most recent of the response objects served by the server includes an accelerator operative to fragment a requested object into static and dynamic components and perform a

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comparison between said static components and said end-user cached components to identify said fresh components, and wherein said mechanism for transmitting said fresh components to the end-user includes a dynamic object having including said fresh components, reference to fitting said previous components and reassembly instructions (see page 2, [0016]).

Allowable Subject Matter

4. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of "wherein said additional information in said DO includes: i. a reference to a browser rendering object (BRO) having a BRO script that includes a substring offset, a length of the string to be extracted from the target OO and an offset, and ii. a dynamic data array that consists of an unmatched areas between the target OO and any SO from said SOL, and pointers to a location inside each said SO that is matched within the target OO" as recited claim 4.

Claim 5 depends on claim 4 and therefore, prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of claim 5.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Won/

Primary Examiner

July 5, 2007